

### **ABSTRACT**

The present invention relates to methodology for polymer grafting by a polysaccharide synthase and, more particularly, polymer grafting using the hyaluronate or chondroitin or heparin/heparosan synthases from *Pasteurella*, in order to create a variety of glycosaminoglycan oligosaccharides having a natural or chimeric or hybrid sugar structure with a targeted size that are substantially monodisperse in size.